BCT Meeting Agenda
May 24, 2005, 1000 - 1500
Tetra Tech Office, 135 Main Street, Suite 1800
San Francisco, CA

1000 **New Navy Business** (Patrick Brooks)
- New business
- Next BCT meeting and review of upcoming meetings

1010 **Action Item List Review** (Patrick Brooks)

1015 **Landfill Gas Update** (Andrew Baughman)

1030 **Parcel E Shoreline Removal Action Update** (group discussion)
- Metal Reef
- Metal Slag
- IR-O2 Northwest and Central
- PCB Hot Spot

1230 **Lunch**

1330 **RU C5 GW Investigation/Planning** (group discussion)

1430 **Document Review Matrix** (Patrick Brooks)

1445 **Review Action Items** (Patrick Brooks)

1500 **Adjourn**

Hunters Point Shipyard Calendar

MAY 2005

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3 Economic Subcommittee Meeting 2:30-4:30 1715 Yosemite Avenue, San Francisco 94124	4	5	6	7
8	9	10	11 MBCO Subcommittee Meeting 6:30-8:00 p.m. Anna Waden Library, 5075 Third Street, San Francisco 94124	12 Southeast Community Facility Commission – HPS Update 1800 Oakdale Avenue, SF 6:00-8:00 pm Kickoff Meeting Parcel E and E-2 Removal Actions	13	14
15	16	17 Begin excavation at PCB Hotspots	18 Technical Subcommittee Meeting 6:30 p.m. Southeast Community College Room #203 1800 Oakdale Ave, San Francisco, CA 94124	19	29	21
22	23	24 Begin excavation of PCB hotspots BCT Meeting 10–3 TtEMI 135 Main Street, Suite 1800 San Francisco 94105 Lowman RAD/Risk Review Subcommittee 3–5 Anna Waden Library, 5075 Third Street, San Francisco 94124	25 RAB Meeting 6-8:00 Dago Mary's Building 916 San Francisco 94125	26	27	28
29	30 **Memorial Day**	31 Begin excavation at IR-02 Northwest/Central	**Notes:** BCT: Base Realignment and Closure Cleanup Team MBCO: Membership Bylaws and Community Outreach PCB: Polychlorinated Biphenyl RAB: Restoration Advisory Board RAD: Radiological TtEMI: Tetra Tech EM Inc.			

Hunters Point Shipyard Calendar

JUNE 2005

SUN	MON	TUE	WED	THU	FRI	SAT
Notes: BCT: Base Realignment and Closure Cleanup Team RAB: Restoration Advisory Board TtEMI: Tetra Tech EM Inc.			**1** Begin Metal Reef/Metal Slag Silt Curtin Installation	**2**	**3**	**4**
5	**6**	**7** Begin excavation at Metal Reef/Metal Slag Areas Removal action kick off meeting 10am TTECI Trailer HPS, San Francisco 94124	**8**	**9**	**10**	**11**
12	**13**	**14**	**15**	**16**	**17**	**18**
19	**20**	**21** BCT Meeting 10–3 TtEMI 135 Main Street, Suite 1800 San Francisco 94105 Lowman RAD/Risk Review Subcommittee 3–5 Anna Waden Library, 5075 Third Street, San Francisco 94124	**22** Final RAB Meeting at 6-8:00 Dago Mary's Building 916 San Francisco 94125	**23**	**24**	**25**
26	**27**	**28**	**29**	**30**	**Notes:**	

Hunters Point Shipyard Calendar

JULY 2005

SUN	MON	TUE	WED	THU	FRI	SAT
Notes: BCT: Base Realignment and Closure Cleanup Team RAB: Restoration Advisory Board TtEMI: Tetra Tech EM Inc.					1	2
3	4 **Independence Day**	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26 BCT Meeting 10–3 TtEMI 135 Main Street, Suite 1800 San Francisco 94105 Lowman RAD/Risk Review Subcommittee 3–5 Anna Waden Library, 5075 Third Street, San Francisco 94124	27	28 *Tentative RAB Meeting 6-8:00 Alex Pitcher Room Southeast Community College 1800 Oakdale Ave. San Francisco 94125*	29	30
31						

ATTACHMENT B
HUNTERS POINT SHIPYARD BASE REALIGNMENT AND CLOSURE CLEANUP TEAM ACTION ITEMS

Action	Date Identified	Responsible Party	Date Due	Date Accomplished	Notes
Basewide: Revisit the RAMP as part of the annual groundwater report. Review comments on the Basewide Groundwater monitoring plan prior to making recommendations for next year's sampling.	22-Feb-05	Patrick Brooks (Navy)	May 2005	June 14	Complete.
Parcel B: Provide scheduled date for beginning of phase II sampling at IR07 and IR18 to BCT.	26-April-05	Ryan Ahlersmeyer (Navy)	May 2005	18-May-05	Complete.
Parcel B: Discuss possible additional actions associated with exceedance of RAMP trigger levels.	July 2004	Patrick Brooks (Navy) Glenn Christensen (Navy) Jim Ponton (Water Board)	Spring 2005		Postponed pending completion of annual groundwater monitoring report, which is currently being prepared.
Parcel C: Resend boring logs for IR25MW-54A and IR25MW-53A to BCT.	26-April-05	Glenn Christensen (Navy)	May 2005	May 2005	Complete.
Parcel C: Send a summary of analytical results from Dry Dock 4 caisson water sampling to EPA.	26-April-05	Patrick Brooks (Navy)	May 2005	May 2005	Complete.
Parcel D: Remind the BCT of the rationale for "the notch" in Parcel D/E boundary and indicate the basis of that rationale - a groundwater, soil, or building issue?	22-Mar-05	Patrick Brooks (Navy)	May 2005		The Notch is part of IR-36 based on building 404A, a covered parking area, which is a suspected chemical storage area (propane and ACM).

ATTACHMENT B
HUNTERS POINT SHIPYARD BASE REALIGNMENT AND CLOSURE CLEANUP TEAM ACTION ITEMS (Continued)

Action	Date Identified	Responsible Party	Date Due	Date Accomplished	Notes
Parcel E: Provide schedule dates for removal action kick-off meetings to BCT.	26-April-05	Patrick Brooks (Navy)	May 2005		Anticipated date is June 7th.
Parcel E: Explore possible surface seeps of free product at other bases in the area.	26-April-05	Patrick Brooks (Navy)	May 2005		Man-made surface seeps present at Alameda from fill placed on top of free product.
Parcel E: Revise the PCB Hot Spot workplan to include deeper test pits that are more likely to locate free product and share revised maps and language from the workplan with DTSC.	26-April	Patrick Brooks (Navy) Mark Walden (Navy)	May 2005	May 2005	Complete.
Parcel E: Coordinate with Water Board for site visit during second quarter, 2005.	26-April-05	Patrick Brooks (Navy)	May 2005		Scheduled for June.
Parcel E: Submit Asbestos Dust Mitigation Plans to BAAQMD 60 days before conducting any removal activities.	22-Feb-05	Patrick Brooks (Navy) Jose Payne (Navy)	June 2005	April 29, 2005	Complete.
Parcel E: Provide criteria for dust monitoring during shoreline removal actions to the BCT.	22-Mar-05	Patrick Brooks (Navy) Ryan Ahlersmeyer (Navy)	Spring/Summer 2005	April 2005	Complete during April RAB and follow up during May RAB.
Parcel E: Explore the possibility of extending terrestrial erosional control measures into the fall until vegetation has taken hold at shoreline removal locations.	22-Mar-05	Patrick Brooks (Navy) Jose Payne (Navy)	Fall 2005	May 2005	Accepted.
Parcel E: Explore possibility of including dissolved metals in water quality parameters measured outside and inside the silt curtain at the shoreline removal areas and compare these measures to baseline levels and aquatic life criteria.	22-Mar-05	Patrick Brooks (Navy) Jose Payne (Navy)	Spring/Summer 2005	May 2005	Accepted.
Parcel F: Schedule Parcel F FS Scoping meeting.	22-Mar-05	Patrick Brooks (Navy)	Spring 2005		Tentatively scheduled for early July.

ATTACHMENT B
HUNTERS POINT SHIPYARD BASE REALIGNMENT AND CLOSURE CLEANUP TEAM ACTION ITEMS (Continued)

Notes:

ACM	Asbestos Containing Materials
BAAQMD	Bay Area Air Quality Management District
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
FS	Feasibility study
NA	Not applicable
Navy	U.S. Department of the Navy
RAB	Restoration advisory board
RAMP	Remedial action monitoring plan
TMSRA	Technical memorandum in support of a ROD amendment
Water Board	San Francisco Regional Water Quality Control Board

Recent Completed Review Periods
Document Review Table
Hunters Point Shipyard

Item	Parcel	Document Name	Submittal Date	Expected Date for Comments	Notes	Agency Submittal of Comments			
						EPA	DTSC	RWQCB	City of SF
1	E	IR-02 NWC Draft Removal Action Workplan	3/9/2005	4/25/2005	Final scheduled for 5/27/05 submittal	4/27/2005;5/4/2005	5/6/05;5/9/05 (DHS;5/2/05)	4/5/2005	*
2	E	Metal Reef/Metal Slag Draft Work Plan	2/22/2005	4/8/2005	Final completed for 5/16/05	3/31/05(tele); 3/14/05(email); 4/18/05;4/27/05	(DHS; 4/11/05)	3/31/2005	*
3	E	PCB Hotspots Draft Work Plan	2/25/2005	4/11/2005	Final completed 5/17/05	4/12/2005; 5/9/05	4/21/05(DHS; 4/12/05)	3/17/2005	*
4	C	Draft Dry Dock 4 Water Sampling Summary Report, includes Caisson results	3/31/2005	4/30/2005	Final scheduled for 7/15/05 submittal	*	*		*
5	E-2	Draft February 2005 Monthly Gas Monitoring Report	4/4/2005	5/4/2005	Final scheduled for 4/22/05 submittal	5/4/2005	*	*	*
6	C	Follow-on Zero Valent Iron Treatability Study Cost and Performance Evaluation	4/21/2005	n/a	For information purposes only.	n/a	n/a	n/a	n/a
7	E-2	Final February 2005 Monthy Gas Monitoring Report	5/23/2005	n/a	For information purposes only.	n/a	n/a	n/a	n/a
8	E-2	Final December 2004 Monthly Gas Monitoring Report	4/25/2005	n/a	For information purposes only.	n/a	n/a	n/a	n/a
9	E-2	Final January 2005 Monthly Gas Monitoring Report	4/25/2005	n/a	For information purposes only.	n/a	n/a	n/a	n/a
10	E-2	Final PCB Removal Action Memorandum	5/17/2005	n/a	For information purposes only.				

Upcoming Review Periods
Document Review Table
Hunters Point Shipyard

			Approximate	Expected Date		Agency Submittal of Comments			
Item	Parcel	Document Name	Submittal Date	for Comments	Notes	EPA	DTSC	RWQCB	City of SF
1	E-2	Draft April 2005 Monthly Gas Monitoring Report	5/26/2005	30 days from submittal date	Final scheduled for 7/12/05 submittal				
2	E-2	Final March 2005 Montlhy Gas Monitoring Report	6/7/2005	na	For information purposes only.				
3	E	Draft Shoreline Characterization Technical Memorandum	6/14/2005	45 days from submittal date	RTCs scheduled for 9/15/05 submittal				
4	B	RTCs Construction Summary Report (CSR) Addendum (sites not included in CSR I)	6/17/2005	n/a	For information purposes only.				
5	B	Final July to September 2004 Basewide Groundwater Monitoring Report	6/20/2005	na	For information purposes only.				
6	C,D,E	Final July to September 2004 Basewide Groundwater Monitoring Report	6/20/2005	na	For information purposes only.				
7	E-2	Draft May 2005 Monthly Gas Monitoring Report	6/23/2005	30 days from submittal date	Final scheduled for 8/9/05 submittal				
8	B	Draft October to December 2004 Basewide Groundwater Monitoring Report (Annual Report)	6/24/2005	8/8/2005	Final scheduled for 8/19/05 submittal				
9	B	Draft January to March 2005 Basewide Groundwater Monitoring Report	6/30/2005	30 days from submittal date	Final scheduled for 10/4/2005				
10	C	Draft Sequential Aerobic/Anaerobic Treatability Study Report	6/30/2005	45 days from submittal date	Final scheduled for 9/2005				
11	B	Draft January to March 2005 Basewide Groundwater Monitoring Report	7/1/2005	30 days from submittal date	Final planned for 9/1/05 submittal				
12	C,D,E	Draft October to December 2004 Basewide Groundwater Monitoring Report	7/1/2005	30 days from submittal date	Final scheduled for 8/26/05 submittal				
13	E-2	Final April 2005 Monthly Gas Monitoring Report	7/12/2005	na	For information purposes only.				
14	B	Draft IR-07 / IR-18 Soil Gas Investigation Technical Memorandum	7/15/2005	45 days from submittal date	Final scheduled for 9/28/05				
15	C	Final Dry Dock 4 Water Sampling Summary Report, includes Caisson results	7/15/2005	30 days from submittal date	For information purposes only.				
16	D	Draft Final Feasibility Study	7/15/2005	45 days from submittal date	Final scheduled for 9/22/05				
17	E-2	Draft June 2005 Monthly Gas Monitoring Report	7/21/2005	30 days from submittal date	Final scheduled for 9/6/05 submittal				
18	C,D,E	Draft January to March 2005 Basewide Groundwater Monitoring Report	8/9/2005	30 days from submittal date	Final planned for 11/07/05 submittal				
19	E-2	Final May 2005 Monthly Gas Monitoring Report	8/9/2005	30 days from submittal date	For information purposes only.				
20	E-2	Draft July 2005 Monthly Gas Monitoring Report	8/25/2005	30 days from submittal date	Final scheduled for 10/11/05 submittal				

Notes:

n/a - not applicable
TBD - to be determined

Ongoing Review Periods
Document Review Table
Hunters Point Shipyard

Item	Parcel	Document Name	Submittal Date	Expected Date for Comments	Notes	Agency Submittal of Comments			
						EPA	DTSC	RWQCB	City of SF
1	E-2	Draft March 2005 Monthly Gas Monitoring Report	4/21/2005	5/24/2005	Final scheduled for 6/7/05 submittal				
2	F	Final Validation Study Report	5/2/2005	na	For information purposes only.				
3	B	Draft July to September 2004 Basewide Groundwater Monitoring Report	5/3/2005	6/2/2005	Final planned for 6/20/05 submittal				
4	C,D,E	Draft July to September 2004 Basewide Groundwater Monitoring Report	5/3/2005	6/2/2005	Final planned for 6/20/05 submittal				
5	D	Final Removal Action Closeout Report	5/13/2005	na	For information purposes only.				
6	B	Final April to June 2004 Basewide Groundwater Monitoring Report	5/31/2005	na	For information purposes only.				
7	C,D,E	Final April to June 2004 Basewide Groundwater Monitoring Report	5/31/2005	na	For information purposes only.				

Notes:
* - *comments deferred to other agency*
n/a - not applicable
TBD - to be determined

Parcel E-2 Landfill Gas Update for May 2005

Hunters Point Shipyard

BCT Meeting

May 24, 2005

Monitoring Locations

- 32 GMPs
  - 14 Barrier Wall and Landfill Boundary (Fence Line) (five passive vents are also monitored)
  - 5 UCSF Compound
  - 13 Crisp Avenue
- On-site Structures
  - Groundwater Extraction Well Vaults (25 total: 18 extraction well vaults, 7 electrical vaults)
  - 2 Catch Basins
- UCSF Compound
  - Building 830 crawlspace
  - Surface scans at 3 locations

Parameters Monitored

Item	Units	GMPs	Structures	Surface
Methane	Percent; percent LEL	X	X	X
Background NMOCs	parts per million	X	X	X
NMOCs	parts per million	X	X	X
CO_2	percent	X	X	X
O_2	percent	X	X	X
Soil Gas Pressure	inches of water	X		

In addition, temperature and barometric pressure are recorded at the meteorological station

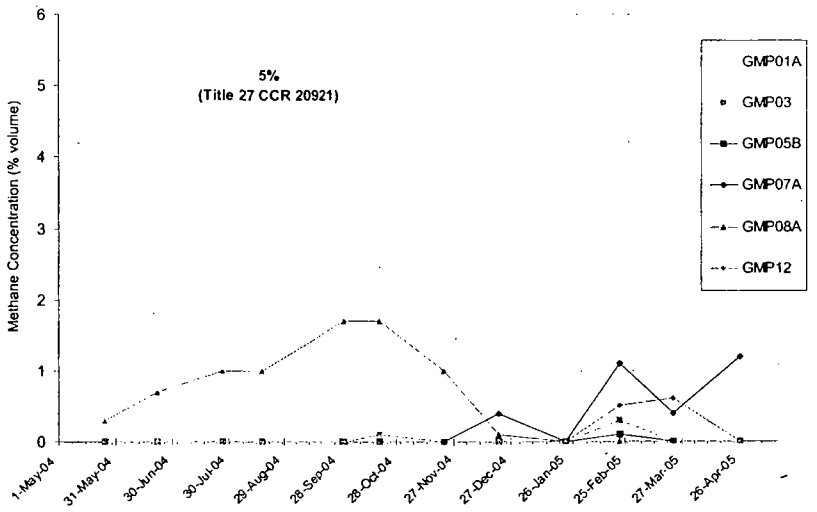
Summary of Monitoring Results

- **April 26, 2005, monitoring results indicate all methane levels are below regulatory requirements:**
  - **below 5% in all GMPs and ambient air locations**
  - **below 1% (the action level for increased monitoring frequency) in all on-site structures**
- **Methane was not detected at any Crisp Avenue GMPs or at any UCSF GMPs.**
- **Methane was detected at only one Fence Line GMP (GMP07A at 1.2%).**
- **NMOCs were well below action levels (5 ppm at on-site structures and utilities, 500 ppm at GMPs) at all locations.**
- **Temporary power (via generator) continues to be provided for the control system, pending installation of a new power pole. PG&E continues to review installation plans.**

Monitoring Results – April 2005

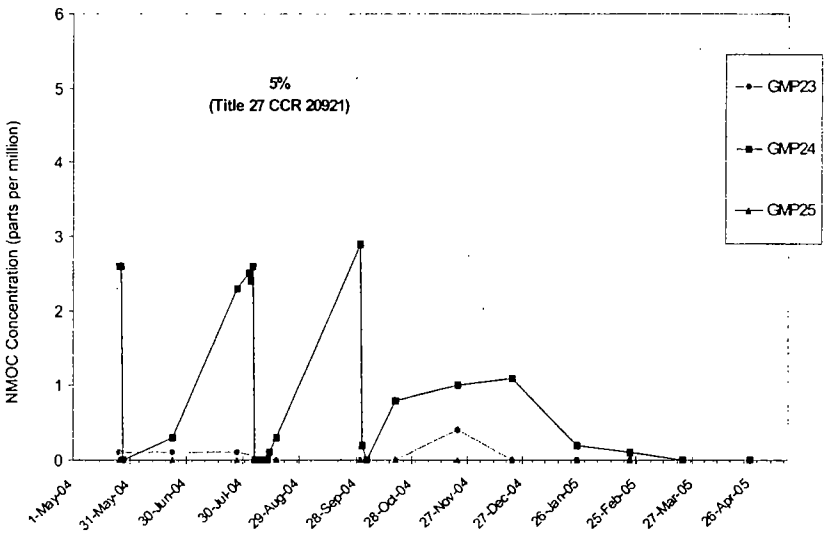
System	Methane	NMOCs	Action
Crisp Ave. GMPs	ND	**< 1 ppm**	No action
On-site Structures	**< 1%**	**< 1 ppm**	No action
UCSF Compound GMPs	ND	**< 500 ppm** (GMP23=2.2 ppm, GMP24=3.3 ppm)	No action
Building 830	ND	**< 1 ppm**	No action
Fence Line GMPs	**< 2.5% at all GMPs** (GMP07A=1.2%)	**< 1 ppm**	No action
Control System	0–19.1%	**< 1 ppm at effluent**	Active extraction at PV-02. Passive extraction at PV-01 & PV-03 thru PV-05.

Methane Concentrations at Fence Line GMPs

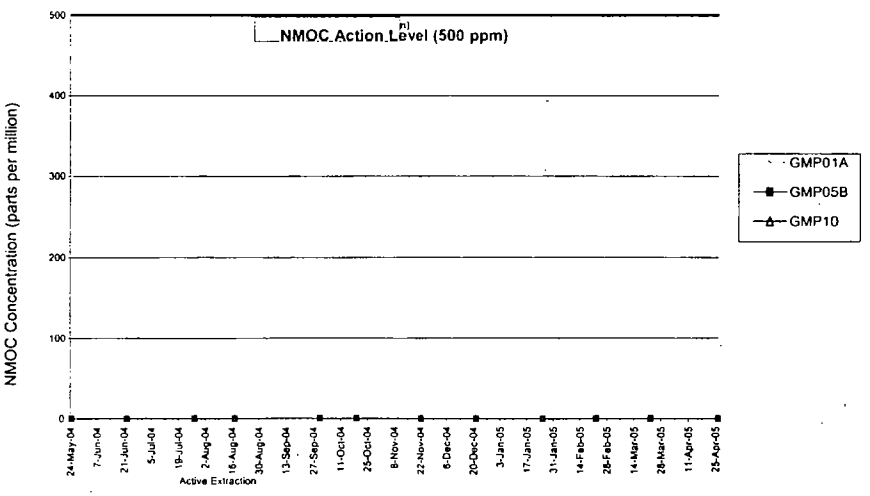


Methane was not detected at GMPs 02A, 04A, 06B, 09A, 10A, and 11A. These GMPs are not plotted for the sake of clarity.

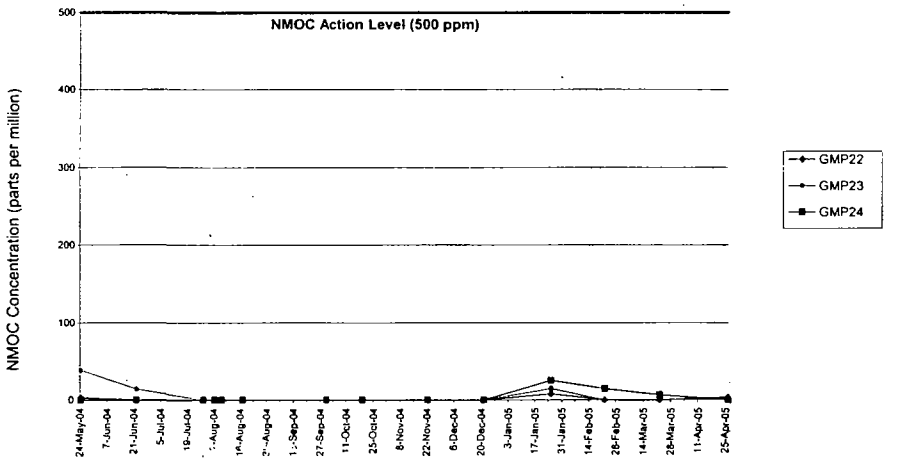
Methane Concentrations at UCSF GMPs



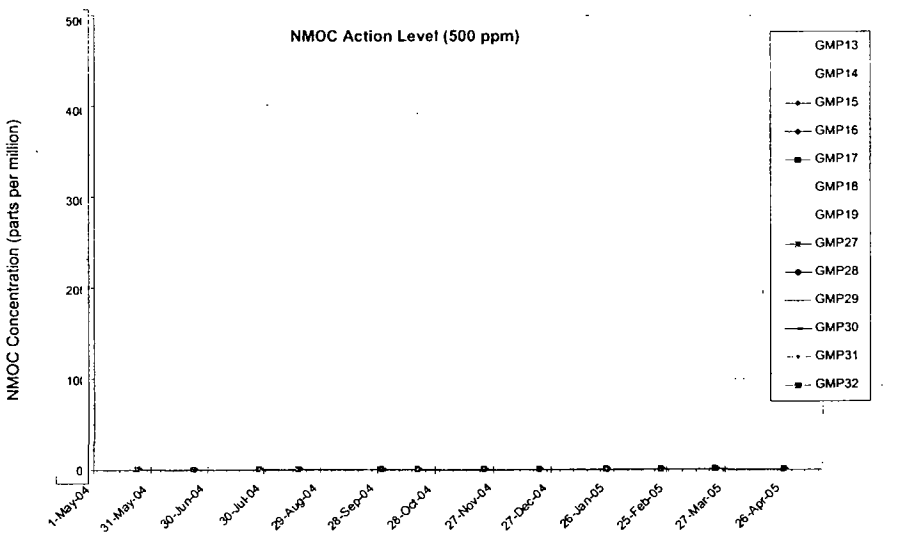
NMOC Concentrations at Fence Line GMPs



NMOC Concentrations at UCSF GMPs



NMOC Concentrations at Crisp Ave. GMPs



Time-Critical Removal Actions Update Hunters Point Shipyard

BCT Meeting

May 24, 2005

Presentation Objectives

- Discuss Work Plan Modifications
- Review Recently Completed Mobilization Work
- Discuss Work-in-progress Communication
- Provide Updated Timeline
- Present Next Steps

Work Plan Modifications - MDR and MSA

- Added post-excavation sampling for non-radioactive contaminants.
- Moved water quality sampling location to 20 feet from silt curtain.
- Added sampling for dissolved metals for water column monitoring outside of silt curtain.
- Added preparing a stand-alone Wetlands Mitigation and Monitoring Plan to address wetlands reconstruction.
- Added limited trenching beyond the excavation boundary to verify extent of waste.

Work Plan Modifications - MDR and MSA

Added post-excavation sampling for non-radioactive contaminants

- One random sample in each 100' by 100' grid cell on excavation bottom.
- One random sample along each 100' of excavation sidewall.
- Analysis for PCBs, metals, and pesticides (based on characterization data).

Work Plan Modifications - MDR and MSA

Moved water quality sampling location to 20 feet from silt curtain.

- Specific location will vary as monitoring point will be adjacent to active work area.

Added sampling for dissolved metals in water column monitoring outside of silt curtain

- Sampling for dissolved metals will be performed concurrently with daily radiological sampling.
- Background data will be collected prior to the start of work.
- Results will be compared to NAWQC values or background, whichever is higher.

Work Plan Modifications - MDR and MSA

Added preparing a stand-alone Wetlands Mitigation and Monitoring Plan to address wetlands reconstruction

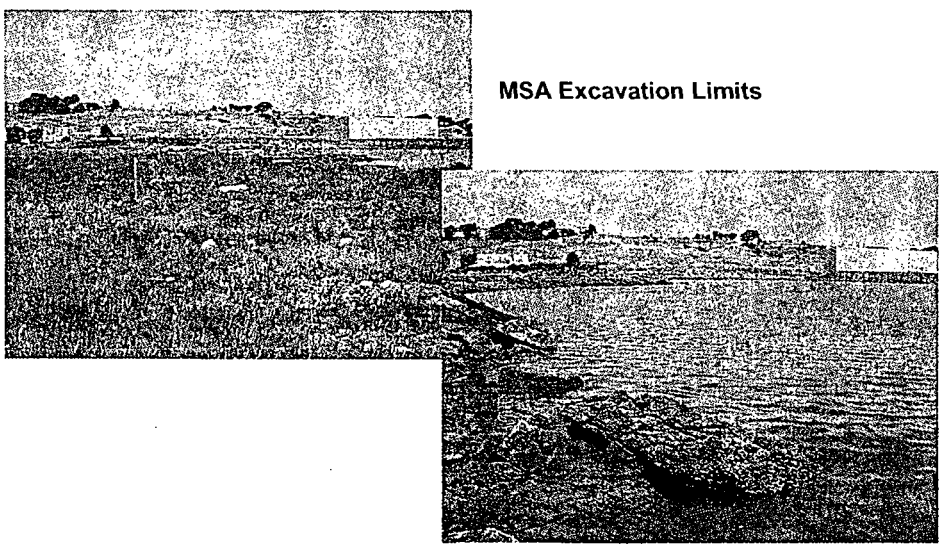
- WMMP content outlined in work plan.
- WMMP will be completed after excavation and backfill of MSA site is finished.
- Restoration in 0.9 acre MSA site will mitigate impacts to 0.6 acres (total) of wetlands within bounds of both MSA and MDR.
- Need for enhancements in adjacent wetlands will be evaluated during WMMP preparation and included as appropriate.

Work Plan Modifications - MDR and MSA

Added limited trenching beyond the excavation boundary to verify extent of waste

- One trench per 25 foot "strip" of excavation.
- Visual evaluation for metal in excavated trench material.
- Excavation extended if metal detected in trench material.
- One sample collected per trench.
- Sample analyzed for radiological constituents only if elevated radiological survey results are indicated on material from trench.

Recent Mobilization Work - MDR and MSA



MSA Excavation Limits

Recent Mobilization Work - MDR and MSA

DART Array at MDR

Work Plan Modifications - PCB Hot Spot

- Expanded pre-excavation analytical parameters
- Expanded post-excavation sampling
- Expanded criteria to extend excavation limits
- Large debris may be sampled for PCBs

Work Plan Modifications - PCB Hot Spot

Expanded pre-excavation analytical parameters

- Immunoassay field screening methods will be used to screen for both PCB and TPH in the field.
- PCB field test kits will be chosen to screen for all PCB aroclors.
- TPH field test kits selected to look for petroleum hydrocarbons in the weathered gasoline to motor oil range.
- On-site radiological analysis will also be used to establish the boundary of the excavation.

Work Plan Modifications - PCB Hot Spot

Expanded post-excavation sampling

- One random sample in each 50' x 50' grid cell on the excavation bottom.
- One boring within each grid that does not extend below 7.5 feet bgs; sample collected at approximately 8 feet bgs
- One random sample along each 50' of excavation sidewall.
- Field test kits will evaluate PCB and TPH concentrations prior to sending for laboratory analysis.
- Laboratory analysis for PCBs and TPH-total.

Work Plan Modifications - PCB Hot Spot

Expanded criteria to extend excavation limits

Final depth of the excavation within each grid and lateral extent will be based on:

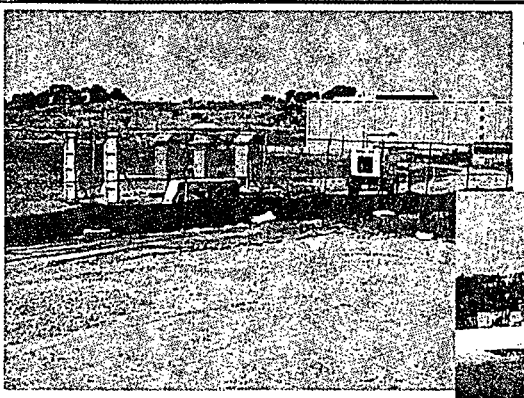
- Visual observations during excavation
- Review of historical information regarding the distribution of PCBs, TPH, pesticides, selected metals, sandblast grit and free product
- Analytical data from samples collected during excavation

Work Plan Modifications - PCB Hot Spot

Large debris may be sampled for PCBs

- Sampling of non-porous debris items will be performed by wipe sampling.
- Sampling of porous debris items will be performed by representative physical sampling.
- Decision to collect samples and frequency of sampling will be based on professional judgment

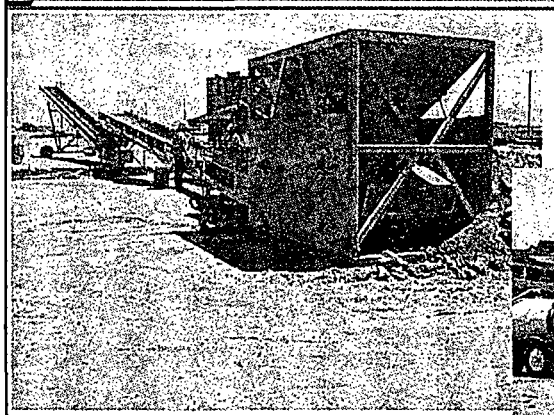
Recent Mobilization Work - PCB Hot Spot

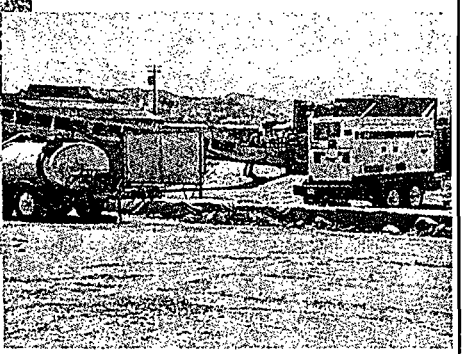


Air monitoring at PCB Hot Spot

Dust control at PCB Hot Spot

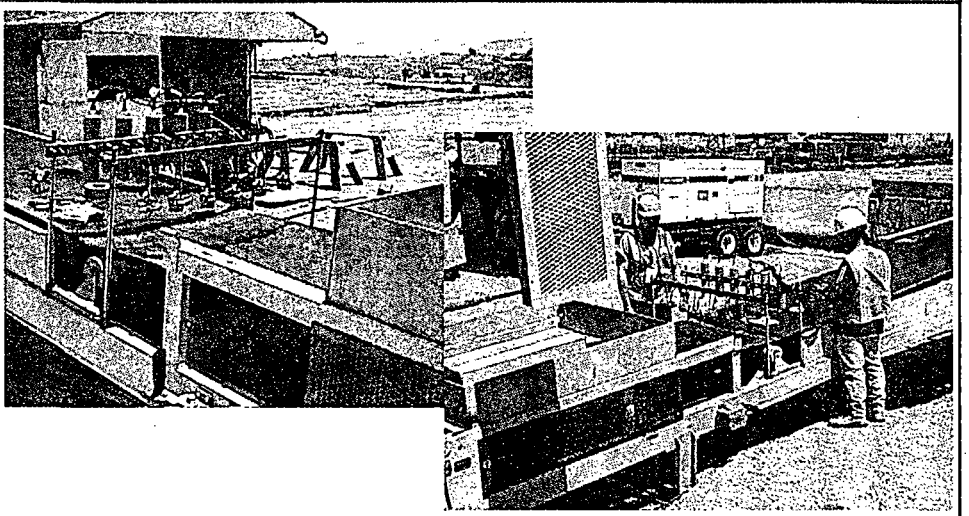
Recent Mobilization Work - PCB Hot Spot





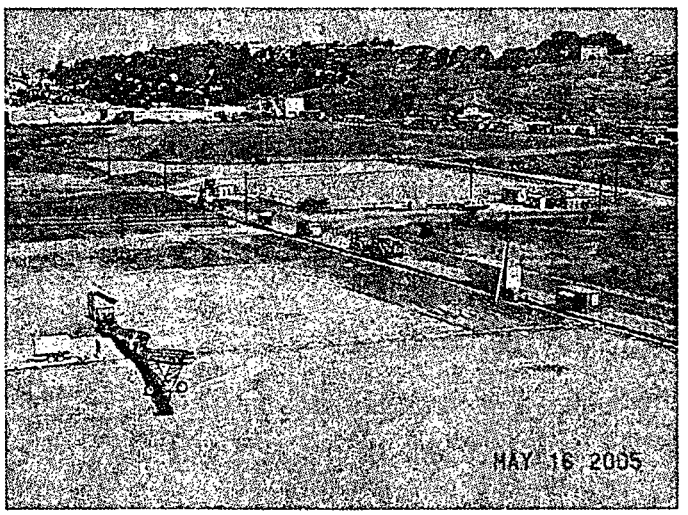
Conveyor system at PCB Hot Spot

Recent Mobilization Work - PCB Hot Spot



Conveyor system at PCB Hot Spot

Recent Mobilization Work – PCB Hot Spot & IR-02 NW & Central



Aerial view of PCB Hot Spot and IR-02 NW & C - Stockpile Areas

Work Plan Modifications - IR-02 NW & Central

- Added post-excavation sampling for non-radioactive contaminants.
- Added segregation and disposal of select non-radiological contaminants.

Work Plan Modifications - IR-02 NW & Central

Added post-excavation sampling for non-radioactive contaminants

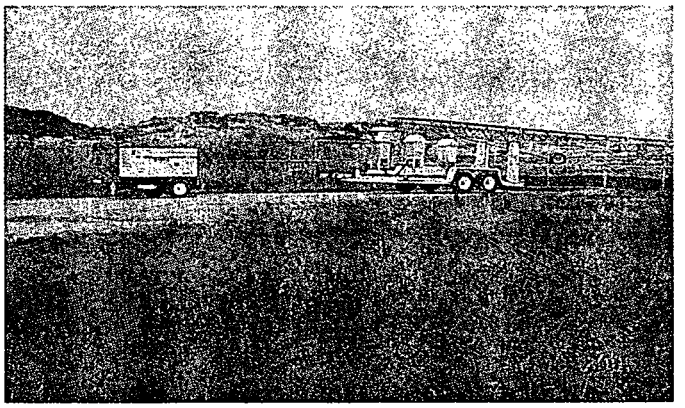
- One random sample in each 100' by 100' grid cell on excavation bottom.
- One random sample along each 100' of excavation sidewall.
- Analysis for PCBs, metals, SVOCs, TPH-extractable, and pesticides (based on historical site data).

Work Plan Modifications - IR-02 NW & Central

Added segregation and disposal of select non-radiological contaminants.

- Segregation and disposal of identified sandblast waste.
- Removal and disposal of metal debris and associated high metals concentrations.
- Segregation and disposal of hydrocarbon stained soil.

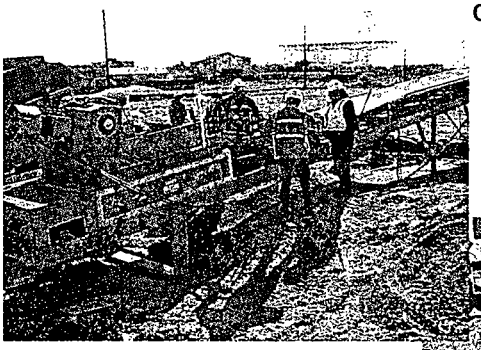
Recent Mobilization Work - IR-02 NW & Central



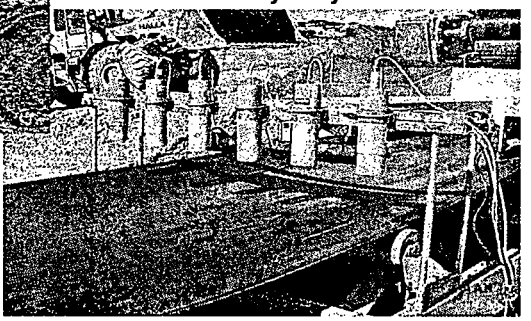
Air sampling equipment in place at IR-02 NW & C

Recent Mobilization Work - IR-02 NW & Central

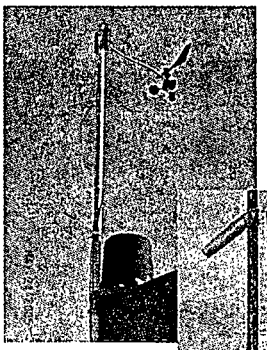
Conveyor System at IR-02 NW & C



Conveyor System Detectors

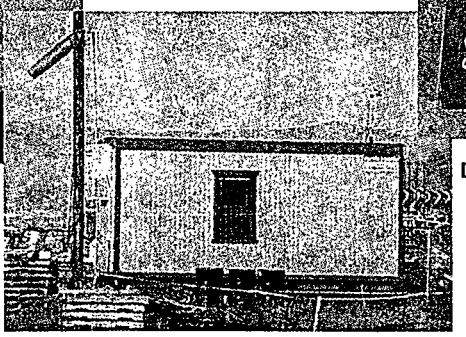


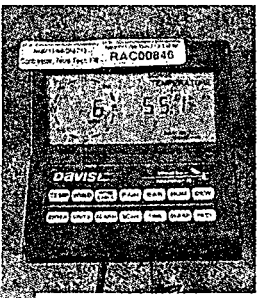
Recent Mobilization Work



Anemometer

Weather Station





Digital Data Display

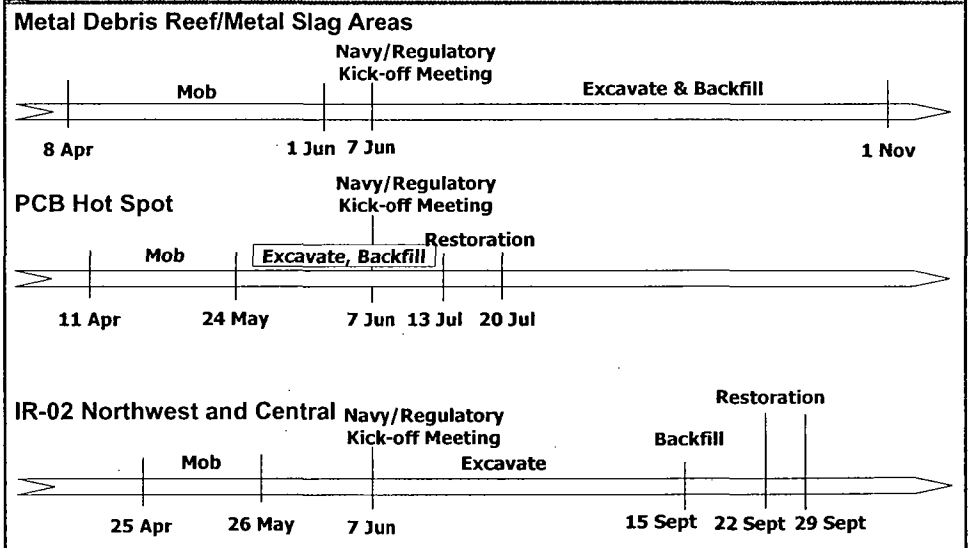
Work-in-progress Communication Strategy

Navy/Regulatory Kick-off Meeting 10:00 AM June 7

Establish routine communication strategy

- Evaluate establishing standing progress review teleconference
- Discuss use of E-size grid maps of TCRA sites to coordinate discussions

Timeline Parcel E Removal Action Projects



Next Steps

- Issue RTCs and Draft Final work plans
  - MDR/MSA (May 24)
  - IR-02 Northwest and Central (May 31)
- Begin field work
  - PCB Hot Spot (May 24)
  - IR-02 Northwest and Central (May 31)
  - MDR/MSA (June 1)
- Navy/Regulatory Kick-off Meeting (June 7)

NAVFAC
Naval Facilities Engineering Command
SOUTHWEST DIVISION

RU-C5 Contaminant Delineation

BCT Meeting

24 May 2005

Overview

NAVFAC

- Objectives
- Field Activities
- Schedule

Objectives

- **Assess the lateral and vertical extent of VOCs in soil gas and shallow groundwater along the boundary between Parcels B and C near RU-C5**
- **Delineate the extent of VOCs into Parcel B if contamination crosses boundary**
- **Assess lateral extent of DNAPL through the collection of deeper A-aquifer groundwater**

Field Activities

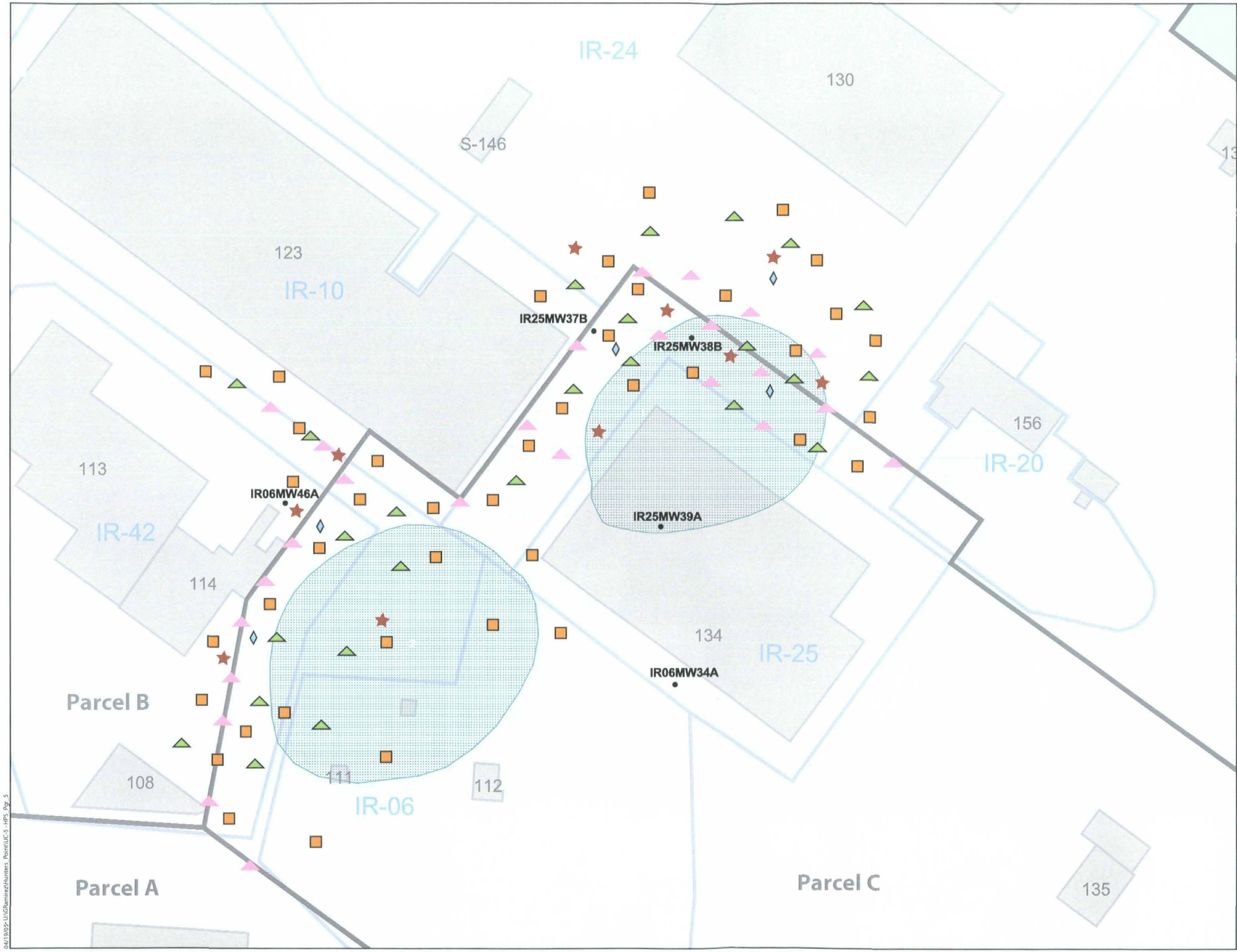
- **Phase A**
  - Passive soil gas samples (25 locations)
- **Phase B**
  - Passive soil gas samples (25 locations)
  - More detail
- **CPT @ 5 locations**
- **Active soil gas sampling**
  - 10 locations

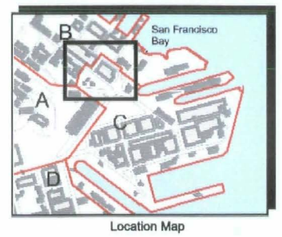
Field Activities

- **HydroPunch sampling**
  - Approximately 40 locations
  - Approximately 10 locations with multiple depths
  - Deeper A-aquifer samples for DNAPL presence
- **Groundwater Sampling**
  - Five wells appropriately located
  - In addition to the BGMP wells
    - IR06MW34A, 46A, 37B, 38B, 39A

Schedule

- **Draft workplan -- June 3**
- **Start Phase A sampling -- 17 August (earlier???)**





Location Map

LEGEND

Proposed Sampling Locations

- *Phase A Passive Soil Gas Sample Location*
- Phase B Passive Soil Gas Sample Location (preliminary)
- CPT Location (preliminary)
- Hydropunch Groundwater Sample Location (preliminary)
- Active Soil Gas Sample Location (preliminary)
- Existing Monitoring Well to be Sampled (not currently included in Basewide Groundwater Monitoring Program)
- Approximate Area of VOC Contamination
- C — Parcel Boundary/Parcel Designation
- IR-24 — Site Boundary/Site Designation
- 123 — Building/Building Designation

Notes:

IR	Installation Restoration
RU	Remedial unit
SAP	Sampling and analysis plan
VOC	Volatile organic compound

Note:
Site investigation will be implemented using a phased approach. Data obtained from each phase will be used to determine subsequent sampling locations.
The sequence will be:
1. Phase A Passive Soil Gas.
2. Phase B Passive Soil Gas.
3. CPT, active soil gas, and Hydropunch groundwater sampling.

The sampling locations shown are to illustrate areas of investigation and sampling density only.

N

80 0 80

Scale in Feet

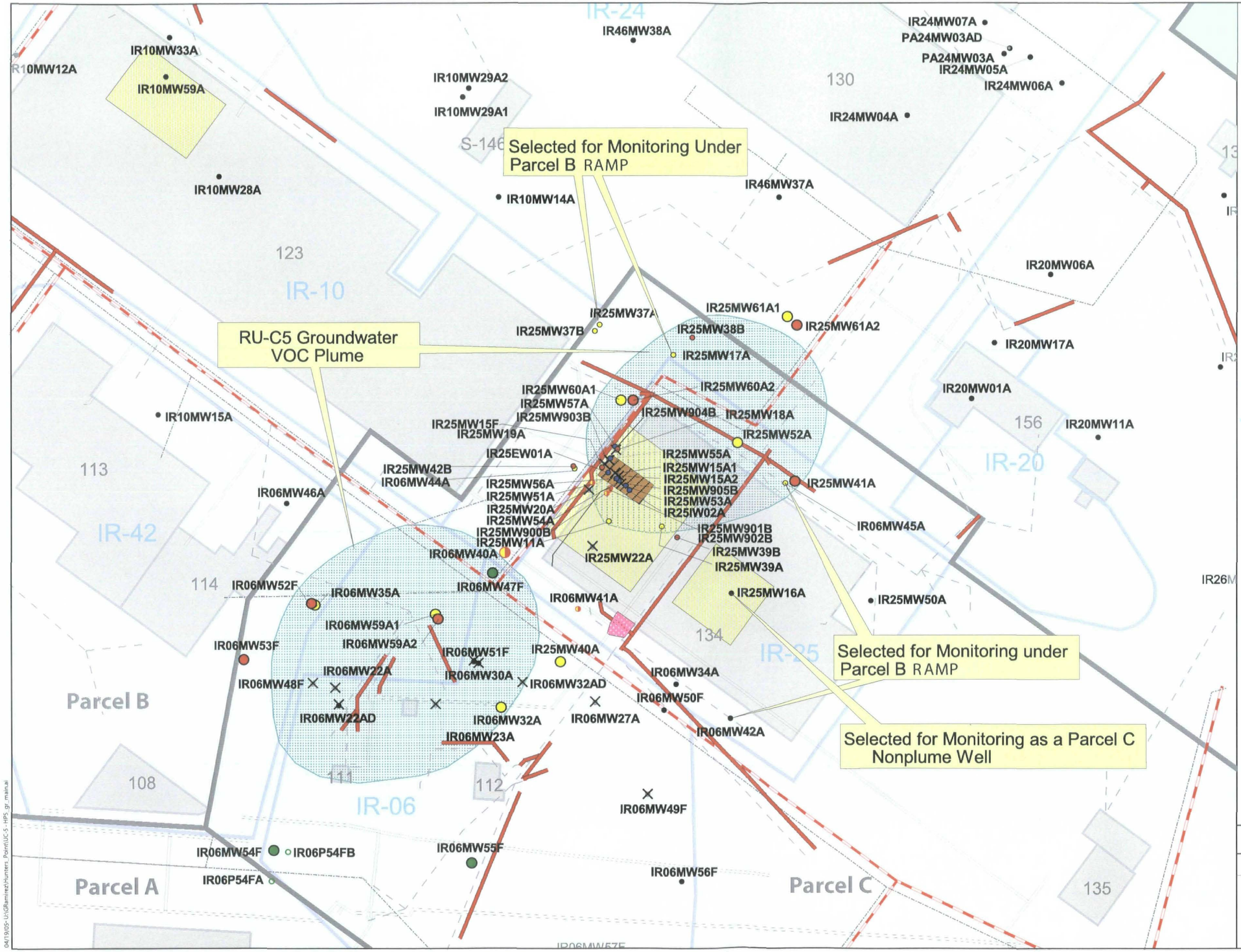
CE² Corporation

Hunters Point Shipyard, San Francisco, California
U.S. Navy, NFECSW, San Diego, California

INTEGRATED WP/SAP FOR RU-C5

FIGURE 1.
PROPOSED SAMPLING LOCATIONS FOR RU-C5 CONTAMINANT DELINEATION

04/19/05-I:\IGB\mirez\Hunters Point\UC-5 - HPS Pgr_5


IR-24
IR46MW38A
IR10MW33A
IR10MW12A
IR10MW59A
IR10MW29A2
IR10MW29A1
IR24MW07A
PA24MW03AD
PA24MW03A
IR24MW05A
IR24MW06A
IR24MW04A
130
S-146
Selected for Monitoring Under Parcel B RAMP
IR10MW28A
IR10MW14A
IR46MW37A
123
IR-10
IR20MW06A
IR25MW37A
IR25MW37B
IR25MW61A1
IR25MW61A2
IR25MW38B
IR25MW17A
RU-C5 Groundwater VOC Plume
IR20MW17A
IR25MW60A1
IR25MW57A
IR25MW903B
IR25MW60A2
IR25MW904B
IR25MW18A
IR20MW01A
IR10MW15A
IR25MW15F
IR25MW19A
IR25MW52A
156
IR20MW11A
IR25EW01A
IR25MW55A
IR25MW15A1
IR25MW15A2
IR25MW905B
IR25MW53A
IR25IW02A
IR-20
113
IR25MW42B
IR06MW44A
IR25MW56A
IR25MW51A
IR25MW20A
IR25MW54A
IR25MW900B
IR25MW11A
IR25MW41A
IR06MW46A
IR-42
IR06MW45A
IR25MW901B
IR25MW902B
IR25MW39B
IR25MW39A
IR25MW22A
IR06MW40A
IR06MW47F
114
IR06MW52F
IR06MW35A
IR06MW41A
IR25MW16A
IR25MW50A
IR06MW59A1
IR06MW59A2
IR06MW53F
IR06MW51F
IR25MW40A
134
IR-25
Selected for Monitoring under Parcel B RAMP
IR06MW22A
IR06MW48F
IR06MW30A
IR06MW32AD
IR06MW34A
IR06MW50F
Parcel B
IR06MW22AD
IR06MW32A
IR06MW27A
IR06MW42A
IR06MW23A
Selected for Monitoring as a Parcel C Nonplume Well
111
112
108
IR-06
IR06MW49F
IR06MW54F
IR06P54FB
IR06MW55F
IR06MW56F
IR06P54FA
Parcel A
Parcel C
135
IR06MW57F
San Francisco Bay
A
B
C
D
Location Map
LEGEND
Wells Selected for Plume Monitoring
Well Screened in Upper A-Aquifer Zone
Well Screened in Lower A-Aquifer Zone
Well Screened in Bedrock Water-Bearing Zone
Well Screened in Both Upper A-Aquifer Zone and Lower A-Aquifer Zone
Wells Not Selected for Plume Monitoring
Newly Installed Treatability Study Well
Well Screened in Upper A-Aquifer Zone
Well Screened in Lower A-Aquifer Zone
Well Screened in Both Upper A-Aquifer Zone and Lower A-Aquifer Zone
Piezometer Screened in Bedrock Water-Bearing Zone
Decommissioned Well
Other Well or Piezometer Not Monitored
Groundwater Flow Direction (February 20, 2002)
Water Utility Line
Sanitary Sewer Line
Submerged Sanitary Sewer Line
Storm Drain Line
Submerged Storm Drain Line
Approximate Area of VOC Contamination
Potential Contaminant Source Area
Parcel C Time-Critical Removal Action Excavation (2001)
Soil-Vapor Extraction Treatability Study (2001)
Parcel Boundary/Parcel Designation
Site Boundary/Site Designation
Building/Building Designation
Notes:
IR Installation Restoration
RAMP Remedial action monitoring plan
RU Remedial unit
SAP Sampling and analysis plan
VOC Volatile organic compound
N
80 0 80
Scale in Feet
CE2 Corporation
Hunters Point Shipyard, San Francisco, California
U.S. Navy, NFECSW, San Diego, California
INTEGRATED WP/SAP FOR RU-C5
FIGURE 2.
BASE MAP FOR RU-C5
Adapted from the SAP for the Basewide Groundwater Monitoring Program
04/19/05-\\GRamirez\Hunters_Point\UC-5 - HPS_gr_main.ai